

REMARKS/ARGUMENTS

Claims 1-33 are pending in the present application. Claims 1-13 and 28-33 are withdrawn from consideration.

This Amendment is in response to the Office Action mailed April 3, 2003. In the Office Action, the Examiner rejected claims 14-16 under 35 U.S.C. §102(b); and claims 17-27 under 35 U.S.C. §102(e). Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Specification

1. Summary of the Invention

The Office Action requested that Applicants add a "Summary of the Invention" description to the application. However, Applicants would like to kindly point out that both the M.P.E.P. and 37 C.F.R. §1.73 do not require the presence of a "Summary of the Invention" in a patent application. They merely indicate where in the application the "Summary of the Invention" should be placed if Applicants were to elect to include one.

In particular, 37 C.F.R. §1.73 only states that "[a] brief summary of the invention ... should precede the detailed description." 37 CFR § 1.73 does not state "must" or "shall." Accordingly, Applicants have elected not to include a "Summary of the Invention" as this is within the discretion of Applicants.

Rejection Under 35 U.S.C. § 102

1. In the Office Action, the Examiner rejected claims 14-16 under 35 U.S.C. §102(b) as being anticipated U.S. Patent No. 5,891,769 issued to Liaw et al. ("Liaw"); and claims 17-27 under 35 U.S.C. §102(e) as being anticipated U.S. Patent No. 6,326,667 issued to Sugiyama et al. ("Sugiyama") and Liaw. Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of anticipation.

Liaw discloses a method for forming a semiconductor device having a heteroepitaxial layer. A strained layer is grown on a substrate (Liaw, col. 3, lines 17-19). Relaxation is then induced in the strained layer by thermal stress (Liaw, col. 3, lines 46-48). This thermal stress is

performed by cooling the substrate to a temperature below the growth temperature (Liaw, col. 3, lines 56-60).

Liaw does not disclose, either expressly or inherently, the strained silicon layer being transferred to a top of a wafer by a heat treatment. Liaw, merely disclosed that the relaxed layer is formed by thermally stressing the strained layer. In addition, Liaw does not disclose, either expressly or inherently, an embrittled region formed by an ion implantation. The Examiner cited Liaw (col. 7, lines 5-53) in rejecting claims 15-16. However, col. 7, (lines 5-53) merely discloses thermally stressing the strained layer to create a relaxed layer (Liaw, col. 7, lines 28-35), not an embrittled region.

Sugiyama discloses a semiconductor devices and methods for producing semiconductor devices. A silicon-on-insulator (SOI) substrate has a silicon substrate mounted with a silicon oxide layer and a silicon single crystal layer (Sugiyama, col. 9, lines 4-8).

Sugiyama does not disclose, either expressly or inherently, a strained silicon layer on top of a SiO_2 layer and transferred from a wafer having a stack structure of a base substrate and a layer of relaxed film. Furthermore, Sugiyama does not disclose an embrittled region as recited in claim 19 and heat treatment at temperature range of 400°C to 600°C as recited in claim 22.

In the Office Action, the Examiner stated that Sugiyama disclose "a strained silicon layer 43 on top of the silicon oxide/dioxide layer". Applicants respectfully disagree. The silicon single crystal layer 43 is not a strained layer. It is used to grow a SiGe layer (Sugiyama, col. 9, lines 20-23, lines 39-41).

To anticipate a claim, the reference must teach every element of a the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989).

Therefore, Applicants believe that independent claims 14, 17 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §102(a) and (e) be withdrawn.

Conclusion

In view of the amendments and remarks made above, it is respectfully submitted that the pending claims are in condition for allowance, and such action is respectfully solicited.

Respectfully submitted,

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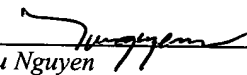
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